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(FILE 'HOME' ENTERED AT 18:46:57 ON 09 AUG 2006)

FILE 'MEDLINE, CAPLUS, EMBASE' ENTERED AT 18:47:13 ON 09 AUG 2006

L1 0 FILE MEDLINE
L2 0 FILE CAPLUS
L3 0 FILE EMBASE
TOTAL FOR ALL FILES
L4 0 S "MAGDA ET AL" AND " TOPICAL APPLICATION OF IVERMECTIN TO TRE
L5 0 FILE MEDLINE
L6 0 FILE CAPLUS
L7 0 FILE EMBASE
TOTAL FOR ALL FILES
L8 0 S MAGDA AND " TOPICAL APPLICATION" AND IVERMECTIN
L9 29 FILE MEDLINE
L10 20 FILE CAPLUS
L11 16 FILE EMBASE
TOTAL FOR ALL FILES
L12 65 S " TOPICAL APPLICATION" AND IVERMECTIN
L13 402 FILE MEDLINE
L14 1002 FILE CAPLUS
L15 408 FILE EMBASE
TOTAL FOR ALL FILES
L16 1812 S MAGDA?/AU
L17 0 FILE MEDLINE
L18 0 FILE CAPLUS
L19 0 FILE EMBASE
TOTAL FOR ALL FILES
L20 0 S L16 AND L12
L21 42 DUP REM L12 (23 DUPLICATES REMOVED)

FILE 'STNGUIDE' ENTERED AT 18:49:48 ON 09 AUG 2006

FILE 'MEDLINE, CAPLUS, EMBASE' ENTERED AT 18:53:19 ON 09 AUG 2006

FILE 'STNGUIDE' ENTERED AT 18:53:20 ON 09 AUG 2006

FILE 'MEDLINE, CAPLUS, EMBASE' ENTERED AT 18:56:31 ON 09 AUG 2006

FILE 'STNGUIDE' ENTERED AT 18:56:32 ON 09 AUG 2006

FILE 'MEDLINE, CAPLUS, EMBASE' ENTERED AT 18:59:10 ON 09 AUG 2006

FILE 'STNGUIDE' ENTERED AT 18:59:11 ON 09 AUG 2006

L22 0 S MAGDA/AU

FILE 'MEDLINE, CAPLUS, EMBASE' ENTERED AT 19:01:59 ON 09 AUG 2006
E MAGDA/AU

L23 68 FILE MEDLINE
L24 348 FILE CAPLUS
L25 52 FILE EMBASE
TOTAL FOR ALL FILES
L26 468 S E3-E86
L27 0 FILE MEDLINE
L28 0 FILE CAPLUS
L29 0 FILE EMBASE
TOTAL FOR ALL FILES
L30 0 S L26 AND HEAD LICE
L31 0 FILE MEDLINE
L32 0 FILE CAPLUS
L33 0 FILE EMBASE
TOTAL FOR ALL FILES
L34 0 S L26 AND LICE

L35 0 FILE MEDLINE
L36 0 FILE CAPLUS
L37 0 FILE EMBASE
TOTAL FOR ALL FILES
L38 0 S L26 AND IVERMECTIN

FILE 'TOXCENTER, SCISEARCH' ENTERED AT 19:04:07 ON 09 AUG 2006

L39 18 FILE TOXCENTER
L40 27 FILE SCISEARCH
TOTAL FOR ALL FILES
L41 45 S HEAD LICE AND TOPICAL
L42 0 FILE TOXCENTER
L43 0 FILE SCISEARCH

TOTAL FOR ALL FILES

L44 0 S L41 AND MAGDA/BI
L45 2 FILE TOXCENTER
L46 13 FILE SCISEARCH

TOTAL FOR ALL FILES

L47 15 S L39 AND (IVERMECTIN OR AVERMECTIN)

FILE 'STNGUIDE' ENTERED AT 19:07:20 ON 09 AUG 2006

L21 ANSWER 40 OF 42 CAPLUS COPYRIGHT 2006 ACS on STN
 AN 1987:80362 CAPLUS
 DN 106:80362
 ED Entered STN: 21 Mar 1987
 TI **Ivermectin** prevents head eversion in the blowfly *Calliphora vomitoria* L
 AU Strong, L.
 CS Dep. Zool., Univ. Bristol, Bristol, BS8 1UG, UK
 SO *Experientia* (1986), 42(11-12), 1295-6
 CODEN: EXPEAM; ISSN: 0014-4754
 DT Journal
 LA English
 CC 5-4 (Agrochemical Bioregulators)
 AB **Ivermectin** [70288-86-7] (0.3 µg) **topical application** to post-feeding *C. vomitoria* larvae 2 days before pupariation resulted in 52% of the puparia failing to produce adult flies, of which 2% died, 35% metamorphosed to headless adults, and 15% to pharate adults, as compared 0, 0, 0 and 0%, resp., for untreated controls. These abnormalities in metamorphosis were related to the inhibition of head eversion in the pupae.
 ST **ivermectin** blowfly head eversion; *Calliphora* metamorphosis
 ivermectin
 IT Metamorphosis
 (in blowfly, **ivermectin** effect on)
 IT *Calliphora vomitoria*
 (**ivermectin**-induced metamorphosis abnormality in, head eversion inhibition in relation to)
 IT 70288-86-7, **Ivermectin**
 RL: BIOL (Biological study)
 (developmental abnormalities in blowfly from, head eversion inhibition in relation to)

L21 ANSWER 39 OF 42 CAPLUS COPYRIGHT 2006 ACS on STN
 AN 1987:27418 CAPLUS
 DN 106:27418
 ED Entered STN: 07 Feb 1987
 TI Efficacy of ivermectin in a topical formulation against induced gastrointestinal and pulmonary nematode infections, and naturally acquired grubs and lice in cattle
 AU Alva-Valdes, R.; Wallace, D. H.; Holste, J. E.; Egerton, J. R.; Cox, J. L.; Wooden, J. W.; Barrick, R. A.
 CS Anim. Sci. Res., Merck Sharp and Dohme Res. Lab., Rahway, NJ, 07065, USA
 SO American Journal of Veterinary Research (1986), 47(11), 2389-92
 CODEN: AJVRAH; ISSN: 0002-9645
 DT Journal
 LA English
 CC 1-5 (Pharmacology)
 Section cross-reference(s): 5
 AB Topical application of ivermectin (I) [70288-86-7] to cattle with exptl.-induced gastrointestinal and pulmonary infections and naturally acquired infestation with grubs and lice resulted in 70-100% cure depending upon the dose of I applied and the infecting organism. Doses of 200, 500, and 1000 µg/kg were used for treating nematode infection, whereas a 500 µg/kg dose was used for treating grubs and lice infestation. Efficacy of I against specific organisms is presented.
 ST ivermectin anthelmintic cattle; intestine nematode cattle ivermectin; lung nematode cattle ivermectin; nematode cattle ivermectin; grub cattle ivermectin; lice cattle ivermectin
 IT Cattle
 (grub and lice infestation and nematode infection of, topical ivermectin effect on)
 IT Nematode
 (infection with, of cattle intestine and lungs, ivermectin effect on)
 IT Cooperia oncophora
 Cooperia punctata
 Dictyocaulus viviparus
 Haemonchus placei
 Nematodirus helvetianus
 Oesophagostomum radiatum
 Ostertagia ostertagi
 Trichostrongylus axei
 Trichostrongylus colubriformis
 (infection with, of cattle intestine and lungs, ivermectin treatment of)
 IT Damalinia bovis
 Hypoderma bovis
 Hypoderma lineatum
 (infestation with, of cattle, ivermectin treatment of)
 IT Intestine, disease or disorder
 Lung, disease or disorder
 (infection, nematode infections of, ivermectin treatment of, in cattle)
 IT 70288-86-7
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (anthelmintic activity of, against grubs and lice infestations and nematode infections, in cattle)

L21 ANSWER 38 OF 42 CAPLUS COPYRIGHT 2006 ACS on STN
 AN 1992:123264 CAPLUS
 DN 116:123264
 ED Entered STN: 03 Apr 1992
 TI Efficacy of a topical **ivermectin** formulation against naturally occurring adult horn flies on cattle
 AU Lancaster, J. L., Jr.; Kilgore, R. L.; Simco, J. S.; Parham, R. W.; Hubbell, D.; Cox, J. L.
 CS Dep. Entomol., Univ. Arkansas, Fayetteville, AR, 72701, USA
 SO Southwestern Entomologist (1991), 16(4), 339-45
 CODEN: SENTDD; ISSN: 0147-1724
 DT Journal
 LA English
 CC 5-4 (Agrochemical Bioregulators)
 AB Application of a topical **ivermectin** formulation (Ivomec Pour-on) at a rate of 500 µg/kg body weight resulted in weekly control of the adult horn fly, *Haematobia irritans* of 94.6%, 66.6%, 80.2% and 44.1%, resp., for the first 4 wk following initial treatment. Weekly control following a second treatment was 97.2%, 93.4%, 86.6% and 88.4%, resp. The greatest weekly redns. in fly nos. occurred following the third application on day 56 at 98.5%, 98.2%, 98.6%, 98.6%, resp., for 4 consecutive weeks. Single applications to two herds in 1987 produced efficacies of 83%-99% during the first 4 wk. Early- and late-season **ivermectin** applications to three herds gave similar results, with the best control being maintained following mid-season application of diazinon ear tags. Susceptible (LC50 of 1.05 µg/cm² fenvalerate) horn flies from a beef cattle farm and low to moderately pyrethroid resistant horn flies from Oklahoma (2.83 µg/cm²), Georgia (8.3 µg/cm²), Texas (10.48 µg/cm²), and Arkansas (16.5 µg/cm²) were all killed within 24 h when exposed to animals treated 6.15 days previously with Ivomec.
 ST **ivermectin** formulation horn fly cattle; *Haematobia* cattle Ivomec formulation
 IT Cattle
 (control of horn flies on, with **ivermectin** formulation)
 IT *Haematobia irritans*
 (control of, on cattle, with **ivermectin** formulation)
 IT 70288-86-7, **Ivermectin**
 RL: BIOL (Biological study)
 (control of horn fly on cattle by topical application)

L21 ANSWER 37 OF 42 CAPLUS COPYRIGHT 2006 ACS on STN
 AN 1995:940494 CAPLUS
 DN 124:44871
 ED Entered STN: 23 Nov 1995
 TI Chemotherapeutic effect of **ivermectin** against *Sarcoptis scabiei*
 var. *canis* infestation in laboratory-bred rabbits, *Oryctolagus cuniculus*
 AU Mak, J. W.; Choong, M. F.; Sivanandam, S.; Ngah, Z.
 CS Institute Medical Research, Kuala Lumpur, 50588, Malay.
 SO Malaysian Journal of Science, Series A: Life Sciences (1995), 16(1), 13-17
 CODEN: MJSAFK; ISSN: 1394-1712
 PB University of Malaya, Faculty of Science
 DT Journal
 LA English
 CC 1-5 (Pharmacology)
 AB At 20 wk postinfestation with the title mite, rabbits treated with
ivermectin (200 µg/kg/day for 2 days, s.c.) had recovered from
 the infection. Crusts and scales formed at lesions in the ears, nose, and
 other affected areas; these had dropped off by the 1st week
 post-treatment, and by week 2 the lesions had healed. At autopsy 6 wk
 post-treatment, no mites were recovered. In contrast, lesions in control
 animals continued unabated, and at autopsy, numerous live, active mites
 were recovered. A single dose of 200 µg/kg was not completely
 effective. **Topical application of ivermectin**
 (10 µg/mL) also appeared to be effective in healing lesions in an
 infested animal.
 ST **ivermectin** acaricide *Sarcoptis* infestation
 IT Acaricides
 (Sarcoptis scabiei canis infestation inhibition by **ivermectin**
)
 IT 70288-86-7, **Ivermectin**
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological
 study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES
 (Uses)
 (Sarcoptis scabiei canis infestation inhibition by)

(ivermectin formulation)

L21 ANSWER 35 OF 42 CAPLUS COPYRIGHT 2006 ACS on STN
AN 1997:309151 CAPLUS
DN 126:324980
ED Entered STN: 15 May 1997
TI Efficacy of benzyl benzoate and ivermectin in the treatment of
ear mite infestation in rabbits
AU Chakurkar, E. B.; Sundaram, R. N. S.; Bhattacharyya, A. R.
CS I.C.A.R. Research Complex for Goa, India
SO Indian Veterinary Journal (1997), 74(4), 288-289
CODEN: IVEJAC; ISSN: 0019-6479
PB Indian Veterinary Association
DT Journal
LA English
CC 1-5 (Pharmacology)
AB Injection of ivermectin at 0.1 mg/kg produced better results in
the treatment of ear mite (Psoroptes cuniculi) infestation in rabbits than
did a lower dose (0.05 mg/kg) of ivermectin or topical
application of a 25% benzyl benzoate suspension.
ST ivermectin benzyl benzoate ear mite rabbit; Psoroptes
infestation rabbit ivermectin benzyl benzoate
IT Rabbit
(ivermectin and benzyl benzoate treatment of ear mite
infestation in)
IT Psoroptes cuniculi
(ivermectin and benzyl benzoate treatment of rabbit ear
infestation by)
IT Ear
(ivermectin and benzyl benzoate treatment of rabbit ear
infestation by Psoroptes cuniculi)
IT 120-51-4, Benzyl benzoate 70288-86-7, Ivermectin
RL: BAC (Biological activity or effector, except adverse); BSU (Biological
study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES
(Uses)
(ear mite infestation in rabbits treatment by)
RE.CNT 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE
(1) Curtis, S; J Am Vet Med Assoc 1990, V196, P1139 MEDLINE

L21 ANSWER 34 OF 42 CAPLUS COPYRIGHT 2006 ACS on STN
 AN 1997:513566 CAPLUS
 DN 127:181167
 ED Entered STN: 13 Aug 1997
 TI Avermectin formulation
 IN Komer, Gene
 PA Komer, Gene, USA
 SO PCT Int. Appl., 14 pp.
 CODEN: PIXXD2
 DT Patent
 LA English
 IC ICM A61K031-70
 CC 63-6 (Pharmaceuticals)
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9726895	A1	19970731	WO 1997-US1361	19970128
	W: AU, BR, CA, GB, MX, NZ				
	US 5773422	A	19980630	US 1996-593075	19960129
	CA 2244843	AA	19970731	CA 1997-2244843	19970128
	AU 9717568	A1	19970820	AU 1997-17568	19970128
	AU 718389	B2	20000413		
	GB 2326093	A1	19981216	GB 1998-16510	19970128
	GB 2326093	B2	19990922		
PRAI	US 1996-593075	A	19960129		
	WO 1997-US1361	W	19970128		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
WO 9726895	ICM	A61K031-70
	IPCI	A61K0031-70 [ICM,6]
	IPCR	A61K0047-22 [I,A]; A61K0047-22 [I,C*]
	ECLA	A61K009/00M5; A61K031/70R5F; A61K047/22
US 5773422	IPCI	A61K0031-70 [ICM,6]
	IPCR	A61K0047-22 [I,A]; A61K0047-22 [I,C*]
	NCL	514/030.000
	ECLA	A61K031/70R5F; A61K047/22
CA 2244843	IPCI	A61K0031-71 [ICM,6]; A61K0031-18 [ICS,6]; A61K0047-22 [ICS,6]; A61K0047-32 [ICS,6]
	IPCR	A61K0047-22 [I,A]; A61K0047-22 [I,C*]
	ECLA	A61K009/00M5; A61K031/70R5F; A61K047/22
AU 9717568	IPCI	A61K0031-70 [ICM,6]
	IPCR	A61K0047-22 [I,A]; A61K0047-22 [I,C*]
	ECLA	A61K009/00M5; A61K031/70R5F; A61K047/22
GB 2326093	IPCI	A61K0031-70 [ICM,6]
	IPCR	A61K0047-22 [I,A]; A61K0047-22 [I,C*]
	ECLA	A61K031/70R5F; A61K047/22; A61K009/00M5
AB	Novel formulations are disclosed for the administration of an avermectin, based upon the use of N-methylpyrrolidone or 2-pyrrolidone or mixts. thereof to dissolve avermectin. Formulations can contain from 0.1 % to 40 % by weight dissolved in at least 5 % by volume of N-methylpyrrolidone, 2-pyrrolidone or mixture thereof. Various formulations are suitable for administration by i.m. or s.c. injection, by topical application , stomach intubation, oral and drench administration. An injection contains ivermectin 0.10-40, N-methylpyrrolidone 5-100, propylene glycol 90-0, and water 30-0%.	
ST	avermectin formulation	
IT	Solubilizers	
	(avermectin formulation)	
IT	Polyoxyalkylenes, biological studies	
	RL: MOA (Modifier or additive use); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (avermectin formulation)	

IT Polyoxyalkylenes, biological studies
 RL: MOA (Modifier or additive use); THU (Therapeutic use); BIOL
 (Biological study); USES (Uses)
 (fatty acid esters; avermectin formulation)

IT Drug delivery systems
 (injections; avermectin formulation)

IT Drug delivery systems
 (topical; avermectin formulation)

IT 57-55-6, Propylene glycol, biological studies 94-13-3, Propylparaben
 100-51-6, Benzyl alcohol, biological studies 616-45-5, 2-Pyrrolidone
 872-50-4, N-Methylpyrrolidone, biological studies 3844-45-9, FD and C
 Blue Number 1 9003-39-8, Pvp 25322-68-3, Peg 25322-68-3D, fatty acid
 esters 60200-06-8, Clorsulon
 RL: MOA (Modifier or additive use); THU (Therapeutic use); BIOL
 (Biological study); USES (Uses)
 (avermectin formulation)

IT 70288-86-7, **Ivermectin** 73989-17-0, Avermectin
 RL: PEP (Physical, engineering or chemical process); THU (Therapeutic
 use); BIOL (Biological study); PROC (Process); USES (Uses)
 (avermectin formulation)

L21 ANSWER 33 OF 42 CAPLUS COPYRIGHT 2006 ACS on STN
 AN 2000:71118 CAPLUS
 DN 132:189332
 ED Entered STN: 30 Jan 2000
 TI Comparison of three treatments for control of ear mites in ferrets
 AU Patterson, Mary M.; Kirchain, Sharron M.
 CS Division of Comparative Medicine, Massachusetts Institute of Technology,
 Cambridge, MA, USA
 SO Laboratory Animal Science (1999), 49(6), 655-657
 CODEN: LBASAE; ISSN: 0023-6764
 PB American Association for Laboratory Animal Science
 DT Journal
 LA English
 CC 1-5 (Pharmacology)
 Section cross-reference(s): 5
 AB For control of *Otodectes cynotis* infestation of ferrets (*Mustela putorius furo*), s.c. injection of the parasiticide ivermectin, topical application of ivermectin to the ear canals, and topical administration of a com. solution containing thiabendazole were compared. During 8 wk, response to treatment was evaluated by weekly examination of ear-swab specimens. Decreases in the number of infested ferrets were observed in both topically treated groups by the 3rd week of the study, when 60% ferrets of the topical thiabendazole group and 73% ferrets of the topical ivermectin group were free of ear mites. At subsequent weekly intervals, ferrets with topical treatment had only dead mites in their swab specimens and no eggs, so viable mites may have been eliminated even before 7 wk when ferrets of both groups were deemed neg. for mites. In contrast, at 3 and 8 wk after treatment beginning, only 27% of ferrets receiving s.c. injections of ivermectin were without ear mites. Because of the successful results and simple topical application, a treatment of ferrets that have evidence of ear mites with local instillation of 400 µg of ivermectin/kg is recommended.
 ST ivermectin thiabendazole *Otodectes* infestation ferret
 IT Mite and Tick
 Mustela putorius furo
 Otodectes cynotis
 Parasiticides
 (treatments for control of ear mites in ferrets)
 IT 148-79-8 70288-86-7, Ivermectin
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (treatments for control of ear mites in ferrets)
 RE.CNT 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD
 RE
 (1) Anon; Personal communication from Scipioni R L 1998
 (2) Bell, J; Compend Contin Educ Pract Vet 1994, V16, P617
 (3) Foley, R; Compend Contin Educ Pract Vet 1991, V13, P783
 (4) Foreyt, W; J Am Vet Med Assoc 1991, V198, P96 MEDLINE
 (5) Fox, J; Biology and diseases of the ferret, 2nd ed 1998, P375
 (6) Nie, I; J Inst Anim Tech 1978, V29, P63
 (7) Orcutt, C; Ferrets, rabbits, and rodents: clinical medicine and surgery 1997, P115
 (8) Scott, D; Muller and Kirk's small animal dermatology 1995, P392
 (9) Scott, E; Vet Res Commun 1992, V16, P139 MEDLINE
 (10) Shell, L; Kirk's current veterinary therapy XII 1995
 (11) Sweatman, G; Can J Zool 1958, V36, P849

L47 ANSWER 15 OF 15 SCISEARCH COPYRIGHT (c) 2006 The Thomson Corporation on STN

AB **Ivermectin** is used in veterinary practice against many ectoparasites and endoparasites and is the drug of choice for treatment of human onchocerciasis. This study was carried out to investigate the effect of **topical** application of this drug against human ectoparasites (*Sarcoptes scabiei* and *Pediculus humanus capitis*). **Ivermectin** was found to have a curative effect on **head lice** after a single **topical** application. In patients with scabies, the drug was also found to be effective after a single application. However, in 50% of the cases, another application was needed five days later.

ACCESSION NUMBER: 1996:94976 SCISEARCH
THE GENUINE ARTICLE: TR971
TITLE: **Topical** application of **ivermectin** for human ectoparasites
AUTHOR: Youssef M Y M (Reprint); Sadaka H A H; Eissa M M; ElAriny A F
CORPORATE SOURCE: UNIV ALEXANDRIA, FAC MED, DEPT PARASITOL, ALEXANDRIA, EGYPT (Reprint); UNIV ALEXANDRIA, FAC MED, DEPT DERMATOL, ALEXANDRIA, EGYPT
COUNTRY OF AUTHOR: EGYPT
SOURCE: AMERICAN JOURNAL OF TROPICAL MEDICINE AND HYGIENE, (DEC 1995) Vol. 53, No. 6, pp. 652-653.
ISSN: 0002-9637.
PUBLISHER: AMER SOC TROP MED & HYGIENE, 8000 WESTPARK DRIVE SUITE 130, MCLEAN, VA 22101.
DOCUMENT TYPE: Article; Journal
FILE SEGMENT: LIFE; CLIN
LANGUAGE: English
REFERENCE COUNT: 22
ENTRY DATE: Entered STN: 1996
Last Updated on STN: 1996
ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

=>

L21 ANSWER 27 OF 42 MEDLINE on STN
 AN 1999226661 MEDLINE
 DN PubMed ID: 10211679
 TI Efficacy of a pour-on formulation of doramectin against lice, mites, and grubs of cattle.
 AU Rooney K A; Illyes E F; Sunderland S J; Sarasola P; Hendrickx M O; Keller D S; Meinert T R; Logan N B; Weatherley A J; Conder G A
 CS Pfizer Central Research, Groton, CT 06340, USA.
 SO American journal of veterinary research, (1999 Apr) Vol. 60, No. 4, pp. 402-4.
 Journal code: 0375011. ISSN: 0002-9645.
 CY United States
 DT (CLINICAL TRIAL)
 Journal; Article; (JOURNAL ARTICLE)
 LA English
 FS Priority Journals
 EM 199906
 ED Entered STN: 28 Jun 1999
 Last Updated on STN: 28 Jun 1999
 Entered Medline: 15 Jun 1999
 AB OBJECTIVE: To determine effectiveness of a pour-on formulation of doramectin against *Damalinia bovis*, *Haematopinus eurysternus*, *Linognathus vituli*, *Solenopotes capillatus*, *Chorioptes bovis*, *Sarcoptes scabiei*, *Hypoderma bovis*, and *Hypoderma lineatum*. ANIMALS: Cattle of various ages with naturally acquired or artificial infestations with 1 or more species of lice, mites, or grubs. PROCEDURE: In 10 louse and 6 mite studies, cattle were treated with doramectin (500 microg/kg, topically) on day 0, and parasite counts were performed approximately weekly from days 0 to 35. In 6 grub studies, cattle expected to harbor *Hypoderma* spp were treated before emergence of warbles. After warbles began to emerge, they were counted every 2 weeks, and grubs were collected and identified by species. RESULTS: Burdens of *D bovis*, *H eurysternus*, *L vituli*, and *S capillatus* on doramectin-treated cattle were 0 by 28 days after treatment. Burdens of *C bovis* and *S scabiei* decreased to 0 in naturally infested cattle and approximately 0 in artificially infested cattle by day 14 to 15. In grub studies, 107 of 136 control cattle had warbles, whereas 2 of 136 doramectin-treated cattle had 1 warble each, which represented a cure rate of 98.5%. CONCLUSION AND CLINICAL RELEVANCE: One topical application of doramectin was highly efficacious against common species of lice, mites, and grubs known to affect performance, health, and appearance of cattle.
 CT Check Tags: Female; Male
 Administration, Topical
 Animals
 Anoplura
 Anthelmintics: AD, administration & dosage
 *Anthelmintics: TU, therapeutic use
 Cattle
 *Cattle Diseases: DT, drug therapy
 Cattle Diseases: PS, parasitology
 Diptera
 Hypodermatitis: DT, drug therapy
 Hypodermatitis: PS, parasitology
 *Hypodermatitis: VE, veterinary
 Insecticides: AD, administration & dosage
 *Insecticides: TU, therapeutic use
 Ivermectin: AD, administration & dosage
 *Ivermectin: AA, analogs & derivatives
 Ivermectin: TU, therapeutic use
 Lice Infestations: DT, drug therapy
 *Lice Infestations: VE, veterinary
 Mallophaga

Mite Infestations: DT, drug therapy

*Mite Infestations: VE, veterinary

Sarcoptes scabiei

Treatment Outcome

RN 117704-25-3 (doramectin); 70288-86-7 (Ivermectin)

CN 0 (Anthelmintics); 0 (Insecticides)